East Midlands Geological Society
Spring Lectures 2026

Saturday 14th March 2026, 6.00 - 7.00pm

Microbially-mediated carbonates in the Mesoproterozoic Stoer Group; earliest evidence of life in Britain?

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Image: Gordon Hatton, https://www.geograph.org.uk/photo/5779493

Venue: School of Geography, Sir Clive Granger Building, University of Nottingham, University Park, Nottingham, NG7 2RD *Google Maps*

www.emgs.org.uk

***Dr Peter Gutteridge i**s a Visiting Lecturer at the University of Manchester*

Abstract: Carbonates within the Stoer Group, previously interpreted as abiogenic structures, are reinterpreted as microbial stromatolites. Stromatolites form by a combination of sediment trapping, binding and precipitation of carbonates associated with microbial activity. They take the form of mats and domical structures a few tens of cm in size that grew in water a few cm deep around the margins of lakes. Some larger stromatolitic structures, several tens of metres across, formed in the deeper parts of lake margins and over the front of coarse-grained deltas as they built out into lakes. These stromatolites are also associated with sedimentary structures that bound the sediment during deposition, but without precipitation of carbonate. These may indicate the presence of a range of calcifying and non-calcifying microbial communities during deposition of the Stoer Group.

Cover Image: Bay of Clachtoll, Assynt, NW Highlands

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